

Applicants respectfully traverse the rejections and urge allowance of the present application.

Referring to the 35 U.S.C. §112, first paragraph rejection, it is stated on page 2 of the Office Action that according to the specification, the reducing of the amplitude of a component of the modulated continuous wave signal can be achieved only after the summing of the modulated continuous wave signal and the local continuous wave signal, and therefore, the limitation of reducing the amplitude of a component prior to demodulation of the modulated continuous wave signal is not described in the specification. Applicants disagree.

Initially, the specification does not state that reducing can be achieved only after summing but rather discloses exemplary aspects of the invention. Next, Applicants refer the Examiner at least to exemplary aspects of the invention of Figs. 5-7 and the associated specification teachings of the originally-filed application as clearly supporting the limitations of the claims rejected under 35 USC 112. Fig. 5 shows a receive antenna R1 configured to receive wireless signals and to apply signals to RF section 74 which provides I,Q signals to A/D components 82, 84 and to FPGA 72. Referring to page 18, lines 5-11 of the specification, it is stated that RF section 74 includes downconversion circuitry for generating in-phase (I) and quadrature signals (Q) which contain a DPSK modulated subcarrier for application to FPGA 72 during return link communications. Referring to page 19, lines 8-16 of the originally-filed specification, it is stated that FPGA 72 is configured to demodulate return link communications received from remote communication devices 12 via RF section 74. It is stated that the exemplary FPGA 72 is configured to perform I and Q combination operations during receive operations and further includes delay and

multiplication circuitry to remove the subcarrier in one exemplary described configuration of the originally-filed specification.

Further, on page 21, lines 17-22 of the originally-filed specification, an exemplary embodiment includes receiver 95 operable to reduce the amplitude of the return link communications received by antenna R1. As set forth on page 22, lines 9-14 of the originally-filed specification, it is stated that receiver 95 sums an adjusted continuous wave signal with a modulated continuous wave signal. The summed return link communication having the reduced amplitude at the frequency of the wireless continuous wave signal is applied to processing circuitry 96. On page 26, lines 15-21 of the originally-filed specification, it is stated that the summed return link communication is applied to LNA 119 and processing circuitry 96.

Accordingly, as described in the originally-filed specification and as illustrated in originally-filed Figs. 5-7, radio frequency signals are received using antenna R1 and applied to adaptive canceler 97 which operates to reduce an amplitude of a component prior to demodulation of the modulated continuous wave signal. The summed return link communication having a reduced frequency at a frequency of the wireless continuous wave signal in the described embodiment is applied to processing circuitry 96. As shown in Figs. 5 and 6 of the originally-filed application, processing circuitry 96 of RF section 74 outputs I and Q signals to FPGA which provides demodulation of return link communications including performing I and Q combination operations in the described exemplary embodiment as set forth on page 19, lines 8-13 of the specification. The originally-filed application clearly provides support for the limitations of the pending claims and the 35

U.S.C. §112, first paragraph rejection is in error. Applicants respectfully request withdrawal of the 35 U.S.C. §112, first paragraph rejection in the next action. The Examiner is respectfully urged to contact the undersigned via telephone if questions remain regarding the teachings of the originally-filed specification and figures.

Referring now to the rejection of claim 64 over the prior art, such claim recites an interrogator comprising, in part, a receiver configured to adjust a local signal responsive to a communication signal and to reduce an amplitude of a component of the communication signal having a first frequency using the adjusted local signal. Claim 64 recites patentable subject matter.

On pages 3 and 4 of the Office Action, teachings of MacLellan and Nysen are identified as allegedly corresponding to limitations of Applicants claims. However, the citation of reference teachings on pages 3 and 4 of the Office Action fails to identify any teachings of the prior art which allegedly disclose or suggest *a receiver configured to adjust a local signal responsive to a communication signal* as clearly defined in claim 64. Elements 28, 30 of Nysen as shown in Fig. 1 are identified as apparently disclosing or suggesting limitations of Applicants' claims. It is stated in the Office Action that the circuit elements may change amplitude or phase of a local signal or backscattered signal. The Office Action statements are in error.

The identified reference teachings clearly fail to disclose or suggest *adjustment of a local signal responsive to the communication signal* as recited in claim 64. Even if limitations of Nysen read on adjusting at least one of an amplitude and a phase of a continuous wave signal as argued in the Office Action, such fails to disclose or suggest a

receiver configured to adjust a local signal responsive to a communication signal as claimed. Positively recited limitations of claim 64 *have been utterly ignored in formulating the 103 rejection of claim 64*. Even if MacLellan and Nysen are combined, the combined teachings fail to disclose or suggest positively recited limitations of claim 64 and claim 64 is in condition for allowance for at least this reason.

Claim 64 stands rejected under 35 U.S.C. §103. Proper obviousness rejections require proper motivation to combine the reference teachings. Referring to MPEP §2143.01 (8th ed.), there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine reference teachings. The mere fact that references *can* be combined or modified does not render the resultant combination obvious *unless the prior art also suggests the desirability of the combination*. MPEP §2143.01 *citing In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Obviousness cannot be established by a combination of references unless there is some motivation in the art to support the combination. *See ACH Hospital Systems, Inc. v. Montifiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). The motivation for forming the combination must be something other than hindsight reconstruction based on using Applicant's invention as a road map for such a combination. *See, e.g., Interconnect Planning Corp. v. Feil*, 227 USPQ 543, 551 (Fed. Cir. 1985); *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990).

There is no motivation to combine the teachings of MacLellan with the teachings of Nysen. In addition, combination of the reference teachings would require substantial engineering or modification to the reference teachings. Initially, Nysen is not concerned

with backscatter communications, continuous wave communications, or radio frequency identification device communications. In fact, Nysen is devoid of any such reference teachings despite assertions on page 4 of the Office Action that Nysen discloses a backscattered signal. Applicants have electronically searched Nysen and have failed to uncover any such teachings. The Office Action fails to identify any teachings of Nysen which allegedly disclose backscatter communications. Device 20 of Nysen includes signal conditioning elements 40 including a known delay T_1 and a known amplitude modification A_1 as set forth in column 6, lines 9-30. The conditioning elements 40 fail to disclose or suggest any backscatter operations or communications.

Accordingly, Nysen relates to different communications technologies than MacLellan and one would not be motivated to combine the inopposite teachings of Nysen with the teachings MacLellan. The proposed modification or combination of the prior art would require substantial reconstruction or redesign of the reference teachings and/or would change the principle of operation of the prior art. Numerous modifications would be required to combine the conditioning elements of Nysen and a backscatter system of MacLellan. According to the MPEP, the teachings of the combined references are not sufficient to render the claims *prima facie* obvious. MPEP 2143.01(8th ed.) citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The *Ratti* court reversed a PTO 103 rejection because the suggested combination of references would require a substantial reconstruction and redesign of the elements shown in the primary reference as well as a change in the basic principle under which the primary reference construction was designed to operate.

In addition to the vastly different types of communications employed by the respective references, Nysen refers to communications of signals having a plurality of frequency values within a prescribed frequency range responsive to a voltage V as set forth in column 6, line 64 to column 7, line 5 and such teachings do not disclose or suggest continuous wave teachings and are not combinable with the continuous wave teachings of MacLellan. Substantial redesign is required to combine the reference teachings and one would not be motivated to combine the reference teachings as set forth in the Office Action. The obviousness rejection is improper without the proper motivation.

It is set forth on page 4 of the Action that it would have been obvious to combine the reference teachings so that a "better result" could be achieved. The record is entirely devoid of any evidence that a better result would be achieved by making the proposed combination. Indeed, the record is devoid of any evidence that the inapposite reference teachings could be combined at all let alone to produce "a better result." The bald cursory statements as set forth in the Office Action fail to provide any evidence of a better result being achieved by the combination or that one would be motivated to combine the references to achieve "the better result." The failure of the Office Action to identify a specific better result achieved is clear evidence such a result can not be achieved or that such a result is not apparent to motivate one to combine the reference teachings.

The Examiner is respectfully reminded that a proper motivational rationale for a combination of art provides that *impetus necessary* to cause one skilled in the art to combine the teachings of the references to make the proposed modification ("Preferably, the Examiner's explanation should be such that it provides that *impetus necessary* to

cause one skilled in the art to combine the teachings of the references to make the proposed modification". *Ex Parte Levengood*, 28 USPQ2d, 1300, 1301, Footnote 2, (Bd. Pat. App. and Inter. 1993) (citations omitted)). The bald statement that "a better result" could be achieved by the combination fails to identify what the improved result would be or that such a result could in fact be obtained if the references were combined. There is no impetus for combining the reference teachings and the 103 rejection is in error. Claim 64 is allowable in the absence of the proper motivation.

The motivation for combining references or modification thereof must be something other than hindsight reconstruction based on using the Applicant's invention as a road map for such a combination or modification. See, e.g., *Interconnect Planning Corp. vs. Feil*, 227 USPQ 543, 551 (Fed. Cir. 1985); *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990). Knowledge of Applicants' disclosure must be put aside in reaching a determination whether the claimed invention "as a whole" would have been obvious at the time when the invention was made. MPEP §2142, (8th edition); see also MPEP §2143, (8th edition). No motivation exists apart from Applicants' disclosure, and accordingly, the Examiner has improperly relied upon teachings of Applicants' disclosure to arrive at the 103 rejection. The obviousness rejection of claim 64 is improper for at least the above-mentioned numerous reasons.

The claims which depend from independent claim 64 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

For example, claim 66 recites the receiver is configured to adjust the local signal

including adjusting at least one of an amplitude and a phase of the local signal. Nysen is entirely devoid of disclosing or suggesting any adjusting of amplitude or phase of a local signal using reference 30. In fact, no specific teachings regarding the operations of reference 30 are described. The prior art fails to disclose or suggest adjusting at least one of an amplitude and a phase of the local signal as recited. Claim 66 recites limitations not shown or suggested in the art and claim 66 is allowable for at least this reason.

Claim 67 recites the receiver is configured to adjust the local signal including matching an amplitude of the local signal with an amplitude of the modulated continuous wave signal. The prior art fails to disclose or suggest any matching of the amplitudes as defined in claim 67 and claim 67 is allowable for at least this reason.

Claim 83 recites a communication method comprising, in part, reducing an amplitude of a first component of a communication signal comprising adjusting a local signal responsive to the communication signal and combining the communication signal and the local signal after the adjusting. Claim 83 is patentable.

Initially, the prior art fails to disclose or suggest the claimed reducing comprising *adjusting a local signal responsive to a communication signal* and combining the communication signal and the local signal after the adjusting as positively recited in claim 83. Reference 30 and the other teachings of Nysen do not disclose or suggest adjustment of a local signal responsive to a communication signal as defined in claim 83. The Office Action fails to identify any teachings of Nysen which allegedly disclose or suggest adjustment of a local signal responsive to a communication signal. The prior art is entirely devoid of disclosing or suggesting positively recited limitations of claim 83 and claim 83 is

allowable for at least this reason.

Additionally, there is absolutely no motivation to combine the inapposite teachings of MacLellan with the teachings of Nysen. The Examiner has engaged in improper utilization of Applicants' disclosure as a roadmap as motivation for combining the reference teachings. The obviousness rejection of claim 83 is improper without the requisite motivation and claim 83 is allowable for at least this additional reason.

The claims which depend from independent claim 83 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

In the event that a rejection of the claims is maintained with respect to the prior art, or a new rejection made, Applicants respectfully request identification *in a non-final action* of elements which allegedly correspond to limitations of the claims in accordance with 37 C.F.R. §1.104(c)(2). In particular, 37 C.F.R. §1.104(c)(2) provides that *the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified*. Further, 37 C.F.R. §1.104(c)(2) states that the Examiner must cite the best references at their command. When a reference is complex or shows or describes inventions other than that claimed by Applicants, the particular teachings relied upon must be designated as nearly as practicable. The pertinence of each reference if not apparent must be clearly explained for each rejected claim specified. Applicants respectfully request clarification of the rejections with respect to specific references and specific references teachings therein pursuant to 37 C.F.R. §1.104(c)(2) in a non-final Action if any claims are not found to be allowable. In particular, Applicants respectfully request clarification of the

reference teachings of the prior art relied upon as allegedly disclosing or suggesting limitations of claims 64 and 83 identified herein.

With reference to the statement of reasons for the indication of allowable subject matter on page 5 of the Office Action, Applicants object to and disagree with such statement to the extent that the statement includes language differing from language of some of Applicant's claims. The patent statutes require claims to be presented and interpreted in accordance with what the Applicants regard as their invention. Accordingly, the claims must be read as Applicants regard them (as they are worded). The statements (e.g., see statements with respect to claim 68) as currently worded might be interpreted later as reading limitations into Applicants' claims which simply are not there. Applicants regards aspects of his invention as defined by the claims.

MPEP §1302.14 (8th ed.) states, in part, that where specific reasons are recorded by the examiner, *care must be taken to ensure that such reasons are accurate, precise, and do not place unwarranted interpretations, whether broad or narrow, upon the claims.* The examiner should keep in mind the possible misinterpretations of his or her statement that may be made and its possible estoppel effects.

In accordance with the above, the Examiner must interpret the claims in accordance with their literal wording, and to the extent the Examiner has not already done so, such is mandated now. If the Examiner relies upon allowance based upon language not appearing in the claims, the Examiner must reject the claims and suggest insertion of such language. Then, Applicants can respond as they deem appropriate.

Allowance of the claims as literally worded is urged. If the Examiner's next action


is a Notice Of Allowance, this file history is to be interpreted as if the Examiner's statement of reasons for allowance in the last Action never existed or was withdrawn. If the Examiner disagrees with this just stated position, claim rejections are mandated.

Applicants respectfully request allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

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